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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/894,497	06/28/2001	Darren Schmidt	5150-52200	7448

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EXAMINER
WACHSMAN, HAL D

ART UNIT	PAPER NUMBER
2857	

DATE MAILED: 04/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

Office Action Summary	Application No.	Applicant(s)
	09/894,497	SCHMIDT ET AL.
	Examiner	**Art Unit**
	Hal D Wachsman	2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 June 2001* .

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-63* is/are pending in the application.

    4a) Of the above claim(s) *21-41, 48-52 and 59-63* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3, 15-17, 20, 42, 43 and 53-58* is/are rejected.

7)☒ Claim(s) *4-14, 18, 19 and 44-47* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 June 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☒ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)	4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) ☐ Notice of Informal Patent Application (PTO-152)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *2* .	6) ☐ Other: .

1.   Applicant's election with traverse of Species I (claims 1-20, 42-47, 53-58) in Paper No. 4 is acknowledged. The traversal is on the ground(s) that the Applicant submits that claim 1 is generic to both claims 21 and 40, i.e. that the steps in claim 1 encompass the steps in claims 21 and 40 for example. This is not found persuasive because the traversal above constitutes a conclusion without arguments specifically pointing out exactly why with respect to the features of claims 1, 21 and 40, claim 1 is generic. In addition, claim 1 is not generic with respect to claims 21 and 40, for example, because claim 1 has the step "if said first test results meet first criteria, outputting information regarding the curve" which is not found in both claims 21 and 40.

The requirement is still deemed proper and is therefore made FINAL.

2.   Claims 21-41, 48-52 and 59-63 stand withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 5.

3.   The drawings are objected to because what is shown in Figures 1 and 2 was known in the prior art however these figures have not been labeled as "Prior Art". Appropriate correction is required.

4.   The declaration is objected to because there is a cross-out of the citizenship for inventor Ram Rajagopal which has not been initialed and dated. Appropriate correction is required.

5.   The algorithms cited on pages 36-39 are objected to under 37 C.F.R. 1.52

because there is insufficient spacing between the lines. Appropriate correction is

required.

6.   Page 1, last line, to the top of page 2 of the specification refers to Figures 6A-C

however there are no figures 6A-6C in the application but rather only a figure 6.

Appropriate correction is required.

7.   Claims 1-20, 42-47 and 53-58, are objected to under 37 C.F.R. 1.75(a) as these

claims do not particularly point out and distinctly claim the subject matter which the

applicant regards as the invention. Claim 1, step d, cites "outputting information

regarding the curve" however outputting from and to what exactly is being claimed here

? This same type of problem also occurs in claim 42, step c, claim 53, step c. The

preambles of all the claims that depend from claim 1 cite "The method of ..." however

the antecedent basis is "A computer-implemented method..". Claim 5, line 3, cites "said

testing" however the antecedent basis is "pre-testing". This same type of problem also

occurs in claim 44, line 4, claim 55, line 4. Claim 13, line 4, cites "the specified radius of

the curve" which lacks antecedent basis. This same type of problem also occurs in

claim 18, lines 3-4, claim 47, lines 4-5, claim 58, lines 4-5. Claim 19, line 6, cites

"furthest from curve" however is this referring to the refined curve ? Claim 19, line 6,

cites contains a "thereby" clause which only cites an intention of use and does not add

further structure to the claim (see In re Mason 114 USPQ 127, CCPA (1957)). Claim

19, lines 9-10, cite "said calculating one or more times to generate a refined curve"

which lacks antecedent basis. In claim 19, line 11, it appears that the word "a" is

missing between the words "generating" and "result". Claim 19, line 16, cites "points"

however the antecedent basis is "data points". Claim 42, lines 2-3, cite "...wherein the

program instructions are executable to perform" but does not indicate on what exactly

the program instructions are executable. Claim 53, line 3, cites "the memory" however

the antecedent basis is "memory medium". It appears that the word "and" is missing at

the end of line 11 of claim 53. The examiner asks the applicant to better claim the

limitations cited above. While the examiner understands the intentions of the applicant

he feels confusion could be drawn from the limitations cited above. Appropriate

correction is required.

Claim Rejections - 35 USC § 112

8.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

9.   Claims 53-58 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention. Claim 53 is a single claim which claims both an

apparatus and the method steps of using the apparatus (see Ex parte Lyell, 17 USPQ2d

1548 (Bd. Pat. App. & Inter. 1990 and MPEP 2173.05(p)). Claim 53 first cites in lines 2-

6 the apparatus limitations of a computer based system however then the last 6 lines of

the claim consists of method steps.

Claim Rejections - 35 USC § 101

10. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

11. Claims 53-58 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 53, already addressed in paragraph 9 above, is a claim that is directed to neither a "process" nor a "machine", but rather embraces or overlaps two different statutory classes of invention set forth in 35 U.S.C. 101 which is drafted so as to set forth the statutory classes of invention in the alternative only.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act

of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting

directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior

to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

13.   Claims 1, 2, 15-17, 42, 43, 53 and 54 are rejected under 35 U.S.C. 102(b) as

being anticipated by Roth (5,617,491).

As per claim 1, Roth (see at least abstract) discloses "receiving a plurality

of data points". Roth (Abstract, figures 2a, 2b, 3a, 3b) discloses "generating a curve

based on two or more random points of the plurality of data points". Roth (Abstract, col.

2 lines 48-54, col. 5 lines 45-48, 63-67, col. 6 lines 1, 2, 40-66) discloses "testing the

curve against a first subset.....testing produces first test results". Roth (Abstract, figure

4d, col. 2 lines 55-57) discloses "if said first test results meet first criteria...regarding the

curve".

As per claim 2, Roth (see at least abstract) discloses the feature of this

claim.

As per claim 15, Roth (see at least abstract) discloses the feature of this

claim.

As per claim 16, Roth (Abstract, figures 2a, 2b, 3a, 3b, 4d) discloses the

feature of this claim.

As per claim 17, Roth (figure 4b) discloses the curve comprising a line.

As per claim 42, Roth (Abstract, figures 2a, 2b, 3a, 3b) discloses "generating a curve based on two or more random points of the plurality of data points". Roth (Abstract, col. 2 lines 48-54, col. 5 lines 45-48, 63-67, col. 6 lines 1, 2, 40-66) discloses "testing the curve against a first subset.....testing produces first test results". Roth (Abstract, figure 4d, col. 2 lines 55-57) discloses "if said first test results meet first criteria...regarding the curve".

As per claim 43, Roth (see at least abstract) discloses the feature of this claim.

As per claim 53, Roth (Abstract, figures 2a, 2b, 3a, 3b) discloses "generating a curve based on two or more random points of the plurality of data points". Roth (Abstract, col. 2 lines 48-54, col. 5 lines 45-48, 63-67, col. 6 lines 1, 2, 40-66) discloses "testing the curve against a first subset.....testing produces first test results". Roth (Abstract, figure 4d, col. 2 lines 55-57) discloses "if said first test results meet first criteria...regarding the curve". Roth (Abstract, col. 9 lines 10-16) discloses a computer system which contains a CPU and a memory medium which can store program instructions. Roth (see at least abstract) discloses the input which is operable to receive a plurality of data points.

As per claim 54, Roth (see at least abstract) discloses the feature of this claim.

14. Claims 1-3, 15-17, 20, 42, 43, 53 and 54 are rejected under 35 U.S.C. 102(e) as being anticipated by Silver et al. (6,408,109).

As per claim 1, Silver et al. (see at least abstract) disclose "receiving a plurality of data points". Silver et al. (Abstract, figure 4A) disclose "generating a curve based on two or more random points of the plurality of data points". Silver et al. (Abstract, col. 3 lines 30-37, col. 11 lines 35-46) disclose "testing the curve against a first subset ...testing produces first test results". Silver et al. (Abstract, figure 4A, col. 13, lines 45-67, col. 14 lines 1-8) disclose "if said first test results meet first criteria, outputting information regarding the curve".

As per claims 2 and 3, Silver et al. (see at least abstract) disclose the features of each of these claims.

As per claim 15, Silver et al. (see at least abstract) disclose the feature of this claim.

As per claim 16, Silver et al. (col. 1 lines 10-26) disclose a variety of digital image formation devices that can be used for displaying a generated curve.

As per claim 17, Silver et al. (figure 4C) disclose that the curve comprises a line.

As per claim 20, Silver et al. (see at least abstract) disclose that the plurality of data points comprises pixels of an image. Silver et al. (col. 3 lines 56-67, col. 4 lines 1, 2) disclose that the curve fitting method operates to perform edge detection on the image.

As per claim 42, Silver et al. (Abstract, figure 4A) disclose "generating a curve based on two or more random points of the plurality of data points". Silver et al. (Abstract, col. 3 lines 30-37, col. 11 lines 35-46) disclose "testing the curve against a

first subset ...testing produces first test results". Silver et al. (Abstract, figure 4A, col. 13,

lines 45-67, col. 14 lines 1-8) disclose "if said first test results meet first criteria,

outputting information regarding the curve".

As per claim 43, Silver et al. (see at least abstract) disclose the feature of

this claim.

As per claim 53, Silver et al. (Abstract, figure 4A) disclose "generating a

curve based on two or more random points of the plurality of data points". Silver et al.

(Abstract, col. 3 lines 30-37, col. 11 lines 35-46) disclose "testing the curve against a

first subset ...testing produces first test results". Silver et al. (Abstract, figure 4A, col. 13,

lines 45-67, col. 14 lines 1-8) disclose "if said first test results meet first criteria,

outputting information regarding the curve". Silver et al. (col. 1 lines 21-26, col. 7 lines

50-59, col. 12 lines 35-38) disclose the CPU and memory medium as described in the

claim with program instructions executable by the CPU. Silver et al. (see at least

abstract) disclose an input which is operable to receive a plurality of data points.

As per claim 54, Silver et al. (see at least abstract) disclose the feature of

this claim.

Double Patenting

15.   The nonstatutory double patenting rejection is based on a judicially created
doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the
unjustified or improper timewise extension of the "right to exclude" granted by a patent
and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11
F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225
USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA

1982); *In re Vogel,* 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

16.   Claim 20 is provisionally rejected under the judicially created doctrine of

obviousness-type double patenting as being unpatentable over claim 1 of copending

Application No. 09/894,272. Although the conflicting claims are not identical, they are

not patentably distinct from each other because it would have been obvious to a person

of ordinary skill in the art at the time the invention was made that the generation of a

curve as described in claim 1 of the copending application constitutes curve fitting being

used for edge detection just as cited in claim 20 of the instant application and that the

pixels of claim 1 of the copending application are data points located in an image as

described in claim 20 of the instant application.

This is a <u>provisional</u> obviousness-type double patenting rejection because the

conflicting claims have not in fact been patented.

17.   Claims 4-14, 18, 19 and 44-47 are objected to as being dependent upon a

rejected base claim, but would be allowable if rewritten in independent form including all

of the limitations of the base claim and any intervening claims and subject to the

appropriate correction of the 37 C.F.R. 1.75(a) objections noted above.

18.   The following references are cited as being art of general interest: Michael which

discloses an edge peak contour tracker, Broekhuijsen which discloses a multi-curve
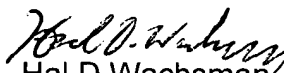
rendering modification apparatus and Ogino et al. which disclose a curve edition

system.

19.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Hal D Wachsman whose telephone number is 703-305-

9788. The examiner can normally be reached on Monday to Friday 7:00 A.M. to 4:30

P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Marc Hoff can be reached on 703-308-1677. The fax phone numbers for

the organization where this application or proceeding is assigned are 703-308-7722 for

regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is 703-308-

0956.

Hal D Wachsman
Primary Examiner
Art Unit 2857

HW
April 28, 2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Hal D Wachsman
Primary Examiner
Art Unit: 2857

PTO-90C (Rev.3-98)